



What's new in ICT, media, popular culture & education?



Lindy Hathaway
Dickson College, ACT
Moderation Day
10 August 2017



Indigenous Literacy Foundation

- 55 000 books gifted so far (2017)
- Books published in 14 indigenous languages
- 66 books published by remote indigenous communities (35 in indigenous languages & English; 16 with indigenous keywords)
- ILF Create Initiative - young women from Tiwi College have partnered with publishers and mentors to create 4 books (Anita Heiss, Alison Lester, Jared Thomas)



<https://www.indigenousliteracyfoundation.org.au/community-literacy-programs>

First Nations Digital Language Archive

- Launched 29 June at Batchelor Institute of Indigenous Tertiary Education, NT
- New website and digitisation project for collecting and archiving Aboriginal & Torres Strait Islander language materials
- Known as the CALL Collection (Centre for Australian Languages and Linguistics)
- Includes materials in 120 languages collected over 40 years by communities, students and staff - texts, audio, video, ebooks
- Creators and copyright holders were consulted about uploading materials

<https://www.batchelor.edu.au/portfolio/first-nations-digital-language-archive-launched/>

<http://callcollection.batchelor.edu.au/>

Educational aspirations of indigenous students

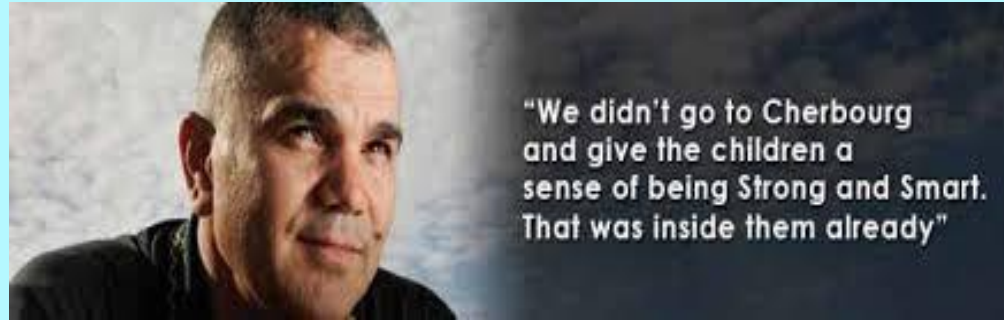
- Longitudinal study of 6400 students (432 indigenous) in 64 NSW government primary & high schools from 2012-2015
- Occupational aspirations of indigenous and non-indigenous students were very similar (boys - sports workers and defence; girls - arts and teacher)
- Most striking finding - highest NAPLAN achievers had very different aspirations. 73% of non-indigenous students planned on uni, but only 42% of indigenous students
- Uni was 'less desirable' for the indigenous students and more support is needed



<https://www.teachermagazine.com.au/articles/the-research-files-episode-32-investigating-the-educational-aspirations-of>

The power of positive

- Chris Sarra (CEO Stronger Smarter Institute, working with indigenous students) - optimism and affirmation bring far greater results in the classroom than negative feedback
- Neuroscience - constant negative messages have an impact on the wiring of the brain
- At Cherbourg School, negative stereotypes were discarded and replaced with a positive cultural identity, along with high expectations from the school community



Queensland Brain Institute: <https://qbi.uq.edu.au/>

https://qbi.uq.edu.au/files/24081/The_Brain_Learning_Memory_QBI.pdf

Evidence for Learning



- Reservations about the validity and usefulness of meta-analyses in education
- Meta-analysis may oversimplify and lose context; it may include studies of poor quality and a focus on academic outcomes can ignore the broader goals of education
- New meta-analysis *Child Development* journal - programs that teach students how to recognise their emotions, solve problems and form healthy relationships may continue to show positive benefits for students months, or even years, later

<http://evidenceforlearning.org.au/>

<http://evidenceforlearning.org.au/news/responding-to-reservations-about-meta-analyses-part-3/>

http://blogs.edweek.org/edweek/rulesforengagement/2017/07/social-emotional_learning_positively_affects_students_even_years_later_analysis_says.html?cmp=eml-enl-eu-news2

Evidence for Learning partnerships

- Partnership with AITSL - new effective feedback resources
- Research shows effective feedback practices can greatly improve student learning and teaching quality
- Access research, Australian case studies and practical tools:
<https://www.aitsl.edu.au/teach/improve-practice/feedback>



Evidence for Learning partnerships



- Partnership with EEF (UK) - independent evaluations
- Achieve Together recruited and developed high-potential teachers in schools with disadvantaged pupils
- EEF independent evaluation found pupils made no more progress than similar pupils in other schools
- Evaluation of the power of classroom talk to increase engagement, learning and attainment (Dialogic Teaching)
- Results were boosted in primary maths, science & English when more time was spent on meaningful dialogue that encouraged students to reason, discuss, speculate, argue and explain - rather than give expected answers

<https://educationendowmentfoundation.org.uk/our-work/projects/achieve-together>

<https://educationendowmentfoundation.org.uk/news/eeef-publishes-four-new-independent-evaluations/>



Google pays professors?

- Google's strategic recruitment of like-minded professors is one of the tech industry's most sophisticated programs
- Funding of conferences, research by trade groups, think tanks and consulting firms
- Google officials "identify work that resonates with a position they have already and then they amplify that work" (Calo)
- Deven Desai was hired by Google in 2010 to find academics to write research papers helpful to Google. He spent \$2 million on conferences and research papers, paying authors \$20 000 to \$150 000. \$400 000 was paid to several researchers investigating ways to improve users' online privacy.
- The money came with no requirements from Google

<http://www.theaustralian.com.au/business/technology/paying-professors-inside-googles-academic-influence-campaign/new-s-story/be54457212642b62203c15a916ebab67>

Google

- Receives nearly \$US80 billion a year in ad sales drawn mostly from 7 products that each attract more than a billion global users a month - Gmail, YouTube, Maps....
- Google Search handles more than 90% of global searches (StatCounter)
- Android will run 1.3 billion of the 1.5 billion smartphones sold in 2017
- June - European regulators issued Google \$US2.71 billion fine for unfairly favouring its services over rivals' in its search results. Google has denied the charge.
- Google: "We're happy to support academic researchers across computer science and policy topics, including copyright, free expression and surveillance, and to help amplify voices that support the principles of an open internet."



**YOU KNOW YOU ARE DESPERATE
FOR AN ANSWER...**



**WHEN YOU LOOK AT THE
SECOND PAGE OF GOOGLE**

me: *mocks parents for not
understanding technology*

me: *has to google how to cook an egg*

Tech news



- 31 July: Apple removed VPN apps in the Chinese App Store that allowed Chinese users to get around China's many internet filters
- 27 July: Apple is discontinuing the iPod Nano and the Shuffle - they cannot play from its streaming service Apple Music
- Doubling iPod Touch capacity (64 GB & 128GB)
- 25 July: Adobe will finally kill Flash in 2020
- HTML5 standards have been implemented across all modern web browsers - no need for Flash
- Microsoft will disable Flash in IE by late 2019; Google will also phase it out over the next few years
- An end to Flash improves security and improves battery life on laptops and mobile devices

<http://www.theaustralian.com.au/business/wall-street-journal/apple-removes-vpn-apps-that-allowed-chinese-users-to-get-around-filters/news-story/3cb41e20ae42e11c9415e1d39665dec4>

<https://www.theverge.com/2017/7/25/16026236/adobe-flash-end-of-support-2020>

Tech news

- Mounting dissatisfaction with NBN; 15% 'seriously dissatisfied'; communications watchdog ACMA to assess complaints; telcos to provide complaint levels
- NBN in 10.6 million premises by June 2019
- Twitter is yet to turn a profit
- Amazon - purchase of huge fulfilment centre in Dandenong South; hundreds of jobs - recruiting now; still no start date



<http://www.theaustralian.com.au/national-affairs/communications-watchdog-takes-charge-of-slow-nbn-complaints/news-story/9dbdf8ef257743240e14c6f96a024c70>

<http://www.abc.net.au/news/2017-08-03/retail-giant-amazon-to-open-huge-warehouse-at-dandenong-south/8770678>

Firefox fights back

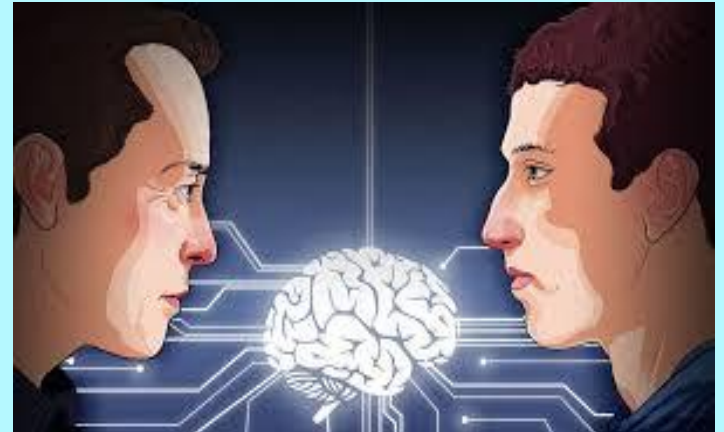
- Mozilla's Firefox 57 will be released in November - will it be better than Chrome?
- 100 million daily users (8 million on phones)
- 54% of browser usage is with Chrome, Safari 14%, Firefox 6%
- Top priority = speed
- Used AI to learn about correctly rendered websites
- Browsing is under threat from apps
- Mozilla Foundation is a nonprofit focused on fuelling the movement for an open internet and net neutrality (all internet traffic should be treated equally)



<https://www.cnet.com/special-reports/mozilla-firefox-fights-back-against-google-chrome/>

Future of Artificial Intelligence: Zuckerberg vs Musk

- Elon Musk believes AI is humanity's 'biggest existential threat'
- Zuckerberg believes AI will bring far more benefits than downsides
 - 'in the next 5 to 10 years, AI will deliver many improvements in the quality of our lives'
- Musk founded OpenAI, a nonprofit that works for 'safer AI'
- Bill Gates and Stephen Hawking also have concerns
- Facebook uses AI for targeted ads, curating news feeds and photo tagging



Batteries that last forever?

- Self-sustaining batteries are needed for activities that use sensors eg. tracking wildlife and biodiversity assessments
- Energy harvesting - uses the sun, vibrations, human motion
- New CSIRO software helps devices operate in an energy-neutral way eg. only using GPS when they have enough energy from solar panels
- Dissolvable batteries made from silk, melanin (skin) and salt water
- Ethics - indefinitely powered devices moves us closer to artificial life forms



<http://theconversation.com/how-to-make-batteries-that-last-almost-forever-79750>

Kids and social media - not all bad news

- Social media encourages learning - the benefits of factual information with shared reflection can deepen understanding
- Connecting online has significant benefits for children with medical conditions and can reduce stigma in the community
- Friendships are strengthened through regular connections

- Social media can drive social issues



<http://theconversation.com/when-it-comes-to-kids-and-social-media-its-not-all-bad-news-80547>

Bill Gates and Jeff Bezos





The world's richest

World's top companies by market value (30/6/17)

- 1.Apple Inc.
- 2.Alphabet Inc. (Google)
- 3.Microsoft Corp.
- 4.Amazon.com Inc.
- 5.Berkshire Hathaway
- 6.Johnson & Johnson
- 7.Facebook, Inc.
- 8.Alibaba Group
- 9.Tencent
- 10.ExxonMobil

https://en.wikipedia.org/wiki/List_of_public_corporations_by_market_capitalization

- Forbes magazine has tracked global wealth for 30 years - only 5 people have been the richest person on the planet
- Amazon's Jeff Bezos (\$90.6 billion) overtook Bill Gates (\$500 million less) on 27 July - it lasted just a few hours
- Gates has held title for 18 of the past 23 years
- 3rd: Amancio Ortega; 4th: Warren Buffett; 5th: Mark Zuckerberg

<https://www.usatoday.com/story/tech/2017/07/27/amazons-jef-f-bezos-close-passing-bill-gates-richest-list/515892001/>

Warren Buffett donates \$3.17 billion in a single day (9 July)

- The majority of Buffett's donation (\$2.4 billion) was given to the Bill and Melinda Gates Foundation
- The rest was given to 4 family charities
- Buffett has vowed to give away 99% of his wealth in his lifetime (or within 10 years of his estate settlement)
- Since 2006 he has given more than 40% of his holdings to 5 foundations (\$27.54 billion)



<https://www.forbes.com/sites/chasewithorn/2017/07/10/warren-buffett-sets-personal-record-donates-nearly-3-2-billion-in-a-single-day/#3fe7ef358c30>

The Giving Pledge

- 2010 - Buffett and Gates campaigned to get other ultra wealthy people to donate at least half of their fortunes to charity - the Giving Pledge
- 170 have now made the pledge, from 21 countries - Michael Bloomberg, Richard Branson, Larry Ellison, Andrew Forrest, Elon Musk, Mark Zuckerberg



Australian philanthropists

- Atlassian Foundation International pledged \$1 million for MIT Solve's Youth, Skills and Workforce of the Future Challenge. AFI aims to help prepare 10 million disadvantaged youth for the workforce, within 10 years.
- The Federal Government will also partner with Atlassian and the Solve initiative and contribute \$1.4 million, which will be used to help disadvantaged youth from the Indo-Pacific region prepare for the future workforce
- Atlassian helped found Pledge 1% - 2000 philanthropic companies



<http://www.fpmagazine.com.au/industry-insider-may-fundraising-news-349507/>

<https://www.arnnet.com.au/article/619599/govt-joins-atlassian-mit-regional-it-skills-push/>

<http://www.theaustralian.com.au/business/atlassian-founders-plant-seeds-of-expanding-culture-of-giving/news-story/8c6d05352074df4ca44c9b76d4f50725>

Australian philanthropists

- May 2017 - \$400 million gift by Twiggy and Nicola Forrest, the biggest single gift in Australian history
- Will be used for various causes - cancer research, higher education (\$75 million to Uni of WA), eradication of slavery



<http://www.abc.net.au/news/2017-05-22/andrew-twiggy-forrest-unveils-huge-donation/8546206>

Libraries ACT and ACT DET schools

- 614 619 items borrowed from local libraries
- 12 666 OverDrive loans in ACT DET schools (2016/17 fin. yr)
- 10 132 of these were ebooks
- 2534 were audiobooks
- Loans of audiobooks have increased greatly



Better Reading

- Encourages all Australians to read
- Vote for the Top 100 2017:

<http://www.betterreading.com.au/>

- Top 100 2016:

http://www.betterreading.com.au/book_list/australias-top-100-for-2016/

- Top 50 Kids' Books 2017:

http://www.betterreading.com.au/book_list/better-reading-presents-australias-top-50-kids-books/

- Lots of good lists - weekly top 10 fiction, NF and children's, book club picks, unreliable narrators, book of the week

